CLAIMS

1. A process cartridge detachably mountable to a main assembly of the image forming apparatus, said process cartridge comprising:

an image bearing member;

a developing device for developing an electrostatic image formed on said image bearing member with a developer;

an image bearing member driving force input portion for receiving a driving force for rotating said image bearing member from an image bearing member driving force output portion from the main assembly of the image forming apparatus;

a developing device driving force input portion for receiving a driving force for driving said developing device from a developing device driving force output portion of the main assembly of the image forming apparatus.

wherein said image bearing member driving force output portion and said image bearing member driving force input portion are engaged with each other with a play in a mounting and demounting direction of said process cartridge, when the driving force is inputted from said image bearing member driving force output portion to said image bearing member driving force input portion, and

wherein when the driving force is inputted from

said developing device driving force output portion to said developing device driving force input portion, a part of said process cartridge is urged toward a positioning portion for positioning of said process cartridge relative to the main assembly.

2. An apparatus according to Claim 1, wherein the driving force is inputted to said developing device driving force input portion by engagement between a driving force output gear of said developing device driving force output portion and a driving force input gear of said developing device driving force input portion, and wherein when the driving force is inputted, a force N, in a direction of an engagement pressure angle, to said process cartridge provided by the engagement between said driving output gear and said driving force input gear, has a component N1 in the mounting direction of said process cartridge and a component N2 in a direction perpendicular to the mounting direction of said process cartridge, and forces N1 and N2 satisfy:

$$N1 \geq N2.$$

3. An apparatus according to Claim 2, wherein an angle formed between the direction of the engagement pressure angle and the mounting direction is not less than 20° and not more than 45°.

4. An apparatus according to Claim 1, wherein said developing device driving force input portion is disposed downstream of said image bearing member driving force input portion in said process cartridge with respect to the mounting direction of said process cartridge.

5. An apparatus according to Claim 1, wherein said image bearing member driving force output portion and said image bearing member driving force input portion are constructed such that when the driving force is inputted, substantially no force is applied from said image bearing member driving force output portion to the image bearing member driving force input portion in a direction of an axis of rotation of said image bearing member.

6. An apparatus according to Claim 5, further comprising a frame for supporting said image bearing member; a regulating member for regulating movement of said image bearing member in a direction of the axis of rotation of said image bearing member relative to said frame.

7. An apparatus according to Claim 1, wherein a part of said process cartridge functions to rotatably

support said image bearing member.

8. An image forming apparatus comprising:

a process cartridge mounting portion for detachably mounting a process cartridge including an image bearing member and a developing device for developing an electrostatic image formed on said image bearing member with a developer;

a positioning portion for positioning said process cartridge relative to said image forming apparatus;

an electrostatic image forming device for forming an electrostatic image on said image bearing member;

an image bearing member driving force output portion for transmitting a driving force for rotating said image bearing member to an image bearing member driving force input portion provided in said process cartridge;

a developing device driving force output portion for transmitting a driving force for driving said developing device to a developing device driving force input portion provided in said process cartridge,

wherein said image bearing member driving force output portion and said image bearing member driving force input portion are engaged with each other with a play in a mounting and demounting direction of said

process cartridge, when the driving force is inputted from said image bearing member driving force output portion to said image bearing member driving force input portion, and

wherein when the driving force is inputted from said developing device driving force output portion to said developing device driving force input portion, a part of said process cartridge is urged toward the positioning portion.

9. An apparatus according to Claim 8, wherein the driving force is inputted to said developing device driving force input portion by engagement between a driving force output gear of said developing device driving force output portion and a driving force input gear of said developing device driving force input portion, and wherein when the driving force is inputted, a force N, in a direction of an engagement pressure angle, to said process cartridge provided by the engagement between said driving output gear and said driving force input gear, has a component N1 in the mounting direction of said process cartridge and a component N2 in a direction perpendicular to the mounting direction of said process cartridge, and forces N1 and N2 satisfy:

$N1 \geq N2$.

10. An apparatus according to Claim 9, wherein an angle formed between the direction of the engagement pressure angle and the mounting direction is not less than 20° and not more than 45°.

11. An apparatus according to Claim 8, wherein said developing device driving force input portion is disposed downstream of said image bearing member driving force input portion in said process cartridge with respect to the mounting direction of said process cartridge.

12. An apparatus according to Claim 8, wherein said image bearing member driving force output portion and said image bearing member driving force input portion are constructed such that when the driving force is inputted, substantially no force is applied from said image bearing member driving force output portion to the image bearing member driving force input portion in a direction of an axis of rotation of said image bearing member.

13. An apparatus according to Claim 12, wherein said process cartridge includes a frame for supporting said image bearing member; a regulating member for regulating movement of said image bearing member in a direction of an axis of rotation of said image bearing

member relative to frame.

14. An apparatus according to Claim 8, wherein a part of said process cartridge functions to rotatably support said image bearing member.